REMARKS

Claims 1-32 are pending in the above-identified patent application. By this Amendment Applicant has amended or rewritten claims 1, 3, 13, 15, 23 and 25, and added new claims 33- 38 in order to further define the present invention.

In the above Office Action, the Examiner has objected to claims 3-10, 15-22 and 25-32 as being dependent upon a rejected base claim. Accordingly, Applicant has rewritten claims 3, 15 and 25 in independent form including all the limitations of the applicable base claim and any intervening claims.

In the above Office Action, the Examiner has rejected pending claims 1, 12-13 and 23 under 35 U.S.C. §102(a) as being anticipated by Joeressen (WO 99/29126). A portion of the Examiner's characterization of Joeressen made in support of the outstanding rejection of claim 1 is set forth below:

> Joeressen discloses in Figs. 7-9, different allocation patterns made by the control unit 80 for controlling the transmissions and receptions of the terminal in order to avoid critical concurrent activities (quality of service criteria) in the first and second communication networks (controller manager taking into consideration quality of service criteria to be achieved for the respective protocols).

Applicant observes that the allocation patterns described by Joeressen in Figs. 7-9 appear to be utilized in order to prevent Joeressen's mobile terminal from simultaneously transmitting in both networks. More particularly, Joeressen's allocation patterns dictate during which time slots transmission and reception may occur within the Joeressen's mobile and LPRF networks:

> Referring to Figure 7, three possible allocation patterns 1), 2) and 3) made by the control unit 80 according to the above algorithm are illustrated. The mobile network is a GSIVI network and in these examples N=6 and /=1 0/1 2ms. A super-frame comprises 6 LPRF time slots labeled 0 to 5 in the Figure and it spans one GSM time frame. *Transmission (down-link, D) in the LPRF network by the mobile terminal during slot 5 is forbidden. In these allocations, the up-link transmission from slave to master unit immediately follows the down-link transmission from master unit to slave. According to the 1 0 first allocation, in the LPRF network the mobile terminal transmits in slot 0, receives in slot 1, and is otherwise inactive. According to the second allocation, in the LPRF network the mobile terminal transmits in slots 0 and 3 and receives in slots 1 and 4. According to the third allocation, in the LPRF network the mobile terminal transmits a packet, which extends over slots 0 and 1 , and another which extends over slots 3 and 4 and receives in slots 2 and 5.*
> [13:1-16, italics added]

It is thus clear that in Joeressen's system that once an allocation pattern has been selected and synchronization has been achieved between the mobile and LPRF networks, both transmission and reception occurs during regular, fixed time slots within each network. That is, Joeressen's system does not maintain or utilize any quality of service metrics or the like on an ongoing basis in order to determine when transmission or reception should occur in a given network. Rather, the times during which such transmission and reception occur are dictated by the particular allocation pattern being utilized.

In contrast, exemplary embodiments of the present invention are configured to monitor a quality of service metric (e.g., frequency of error) and take such metric into consideration in coordinating transmission in accordance with first and second protocols. This aspect of the present invention is summarized by the specification as follows:

> In another embodiment, the at least one controller manager is equipped with logic to maintain a quality metric reflective of frequency of error for each voice stream, and to make its priority determination for messages competing to be transmitted to the first and a second network devices in accordance with the first and second protocols in view of the quality metric maintained for each voice stream. Fig. 14 illustrates the essential operations of the operation flow of controller managers 106 for such embodiment, for taking into consideration quality of service criteria through quality metrics reflective of the frequency of error for each voice stream.
> [21:12-20]

The following excerpt from the specification further describes a particular manner in which a quality of service metric corresponding to an error percentage rate is taken into account when coordinating transmission of messages in accordance with the first and second protocols:

> ...If the message is in competition for priority with another message to be transmitted in accordance with the other protocol, the controller managers further determine if a least me messages have been successfully transmitted consecutively for the voice stream, 1410. M is greater than 1/3, where e is an error percentage rate not to be exceeded. If not more than m messages have been successfully transmitted consecutively for the vice stream, priority is given to the message for the voice stream, and the message is transmitted, 1408. Upon transmission of a message for a voice stream, the controller managers increment the message transmitted counter corresponding to the voice stream, 1412. On the other hand, if at least m messages have been successfully transmitted consecutively for the voice stream, priority is given to the other message, allowing the message for the voice stream to be dropped, 1414.
> [22:5-16]

Applicant respectfully submits that Joeressen's use of an allocation pattern to determine the fixed time slots during which transmit and receive operations are performed in the mobile and LRRF networks fails to either describe or suggest the inventive consideration of quality of service when coordinating transmission within networks governed by different protocols. That is, Joeressen does not define quality of service metrics applicable to either the mobile or LPRF networks, and hence cannot evaluate the quality of service in the respective networks when coordinating transmission in the manner contemplated by the present invention. In this regard Joeressen's system is inherently incapable of taking quality of service criteria into consideration when coordinating transmission, since Joeressen's allocation patterns are inflexible (i.e., such patterns prevent giving priority to transmission of messages in one network over the other in view of quality of service considerations such as, for example, error rate percentage).

Although Applicant respectfully submits that the pending claims capture the above distinctions between the Joeressen system and the present invention, in order to advance prosecution of the application the independent claims under rejection have been amended. In particular, these independent claims now recite that the quality of service criteria is based at least in part upon a first quality metric reflective of a first frequency of error maintained for the first network protocol. As discussed above, Joeressen does not define or compute quality of service metrics for the mobile or LPRF networks, and thus does not suggest use of a quality metric reflective of frequency of error.

New claims 33-38 have been added in order to independently define another aspect of the present invention; namely, that relative priority of message type is taken into consideration when coordinating transmission in accordance with the respective protocols. Again, because Joeressen's allocation patterns prescribe a fixed scheme for coordinating transmissions within the mobile and LPRF networks, Joeressen's system is inherently incapable of taking message type into consideration when coordinating transmission between such networks. That is, the use of allocation patterns in Joeressen's system does not permit the times of transmission of higher-priority and lower-priority messages in the mobile/LPRF networks to be dynamically or otherwise coordinated, since a constant number of fixed transmit and receive slots are allocated to each such network.

Accordingly, in view of Applicant's arguments and amendments set forth herein, it is respectfully requested that the Examiner reconsider the outstanding rejection in view of the cited prior art. The undersigned would of course be available to discuss the present application with the Examiner if, in the opinion of the Examiner, such a discussion could lead to resolution of any outstanding issues.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 03-3117.

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